AUTHOR INDEX

Abt, Steven R.
see Adam, Ahmed M., HY Aug. 93, p938-948
see Johns, Derek D., HY July 93, p864-869

Abu-Sharekh, Majed Subhi
see Vittal, Nandana, HY Feb. 93, p284-289

Adam, Ahmed M.
Characteristics of B-Jump with Different Toe Locations, with James F. Ruff, Ghassan AlQaser and Steven R. Abt, HY Aug. 93, p938-948

Alavian, Vahid
Use of Density Current to Modify Thermal Structure of TVA Reservoirs, with Pete Ostrowski, Jr., HY May 92, p688-706
disc: Vassilios A. Tsihrintzis, HY Apr. 93, p532-534
clo: HY Apr. 93, p534-535

Albertson, Maurice L.
see Shafai-Bajestan, Mahmood, HY Feb. 93, p181-200

Al-Muttair, Fouad
see Vittal, Nandana, HY Feb. 93, p284-289

AlQaser, Ghassan
see Adam, Ahmed M., HY Aug. 93, p938-948

ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries
Effects of Sea-Level Rise on Bays and Estuaries, HY Jan. 92, p1-10
disc: Tad S. Murty, HY May 93, p658-660
clo: HY May 93, p660

Ashkar, Fahim
Separation of Skewness: Reality or Regional Artifact?, with Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475
disc: David E. Creighton, Jr., HY Apr. 93, p535-538
clo: HY Apr. 93, p538-540

Atkinson, Joseph F.
Detachment of Buoyant Surface Jets Discharged on Slope, HY Aug. 93, p878-894

Ayyub, Bilal M.
see Johnson, Peggy A., HY June 92, p887-903

Bernier, Jacques
see Ashkar, Fahim, HY Mar. 92, p460-475

Bhowmik, Nani G.
see Mazumder, Bijoy S., HY May 93, p581-597

Bobée, Bernard
see Ashkar, Fahim, HY Mar. 92, p460-475

Bridge, John S.
see van Niekerk, Andre, HY Feb. 92, p246-262

Brunone, Bruno
see Greco, Massimo, (disc), HY Oct. 91, p1310-1316

Burges, Stephen J.
Confined Aquifer Parameters from a Pump Test Near an Impermeable Boundary, HY July 93, p838-845

Butler, H. Lee
see Johnson, Billy H., HY Jan. 93, p2-20

Chanson, H.
Self-Aerated Flows on Chutes and Spillways, HY Feb. 93, p220-243

Charbeneau, Randall J.
see Loaiciga, Hugo A., HY Jan. 92, p11-37

Chellam, Shankararaman
Laminar Flow with Slip in Channels with Uniformly Porous Walls, with Mark R. Wiesner, HY Jan. 93, p126-132

Chen, Charng-Ning
Critical Rainfall Duration for Maximum Discharge from Overland Plane, with Tommy S. W. Wong, HY Sept. 93, p1040-1045

Chen, Cheng-lung
Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, HY July 93, p816-829

Chen, Ching L.
Great Lakes River-Estuary Hydrodynamic Finite Element Model, with Kwang K. Lee, HY Nov. 91, p1531-1550
disc: Steve C. McCutcheon, HY Feb. 93, p292-293
clo: HY Feb. 93, p294-296

Chen, Ching-Jen
see Tsai, Whey-Fone, HY Nov. 93, p1274-1298

Chiew, Yee-Meng
Frictional Resistance of Overland Flow on Tropical Turfed Slope, with Soon-Keat Tan, HY Jan. 92, p92-97
disc: Vito Ferro, HY Jan. 93, p145-147
clo: HY Jan. 93, p147

Chiu, Chao-Lin
Application of Probability and Entropy Concepts in Pipe-Flow Study, with Gwo-Fong Lin and Jyh-Ming Lu, HY June 93, p742-756
see Crissman, Randy D., HY Nov. 93, p1231-1250

Christensen, B. A.
disc. (of Dimensionally Homogeneous Manning's Formula, by Ben Chie Yen, HY Sept. 92, p1326-1332), HY Dec. 93, p1442-1443

Christodoulou, George C.
Energy Dissipation on Stepped Spillways, HY May 93, p644-650
Incipient Hydraulic Jump at Channel Junctions, HY Mar. 93, p409-421
err: HY July 93, p875

Combs, Phil G.
see Johns, Derek D., HY July 93, p864-869

Corbu, Ion
see Crissman, Randy D., HY Nov. 93, p1231-1250

Correia, Luís R.P.
Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), with Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494

disc: J. L. Rahuel, HY Apr. 93, p528-530
clo: HY Apr. 93, p530-531

Creighton, David E., Jr.
disc. (of Separation of Skewness: Reality or Regional Artifact?, by Fahim Ashkar, Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475), HY Apr. 93, p535-538

Crissman, Randy D.
Uncertainties in Flow Modeling and Forecasting for Niagara, with Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250

Dai, Guang-qing
see Wu, Chao, HY Aug. 93, p911-923

Daly, Steven F.
Wave Propagation in Ice-Covered Channels, HY Aug. 93, p895-910

Davies, Gareth J.
see Quinlan, James F., (disc), HY Jan. 92, p11-37

Diplas, Panayiotis
see Fripp, Jon B., HY Apr. 93, p473-490

Dooge, James C. I.
disc. (of Study of Open-Channel Dynamics as Controlled Process, by Yuri A. Ermolin, HY Jan. 92, p59-72) with J. J. Napiorkowski, HY Apr. 93, p542-543

Ermolin, Yuri A.
Study of Open-Channel Dynamics as Controlled Process, HY Jan. 92, p59-72
disc: James C. I. Dooge and J. J. Napiorkowski, HY Apr. 93, p542-543
disc: Mohammad A. Gill, HY Apr. 93, p543-545
clo: HY Apr. 93, p545-547

Ervine, D. A.
Factors Affecting Conveyance in Meandering Compound Flows, with B. B. Willetts, R. H. J. Sellin and M. Lorena, HY Dec. 93, p1383-1399

Everett, Lorne G.
see Loaiciga, Hugo A., HY Jan. 92, p11-37

Ferro, Vito
disc. (of Frictional Resistance of Overland Flow on Tropical Turfed Slope, by Yee-Meng Chiew and Soon-Keat Tan, HY Jan. 92, p92-97), HY Jan. 93, p145-147
disc. (of Rainfall Intensity-Duration-Frequency Formula for India, by Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336), HY Aug. 93, p960-962

Fiorotto, Virgilio
Fluctuating Uplift and Lining Design in Spillway Stilling Basins, with Andrea Rinaldo, HY Apr. 92, p578-596
disc: Ludovico Ivanissevich Machado, HY Apr. 93, p526-527
clo: HY Apr. 93, p527-528
disc. (of Local Scour at Bridge Abutments, by B. W. Melville, HY Apr. 92, p615-631), HY Sept. 93, p1064-1066

Flippin, Syndi J.
disc. (of Preferred Directions of Flow on Alluvial Fans, by Richard H. French, HY July 92, p1002-1013), HY Nov. 93, p1313-1316

Fogg, Graham E.
see Loaiciga, Hugo A., HY Jan. 92, p11-37

French, Richard H.
Preferred Directions of Flow on Alluvial Fans, HY July 92, p1002-1013
disc: Syndi J. Flippin, HY Nov. 93, p1313-1316
disc: J. S. O'Brien and J. E. Fuller, HY Nov. 93, p1316-1318
disc: Peter Stevens, HY Nov. 93, p1318-1320
clo: HY Nov. 93, p1320-1323

Fripp, Jon B.
Surface Sampling in Gravel Streams, with Panayiotis Diplas, HY Apr. 93, p473-490

Fu, Deng-Tsuang
see Lee, Hong-Yuan, HY Jan. 93, p64-80

Fuller, J. E.
see O'Brien, J. S., (disc), HY July 92, p1002-1013

Fullerton, W. T.
see O'Brien, J. S., HY Feb. 93, p244-261

Funk, J. E.
see Wood, Don J., HY Aug. 93, p949-958

Garcia, Marcelo H.
Hydraulic Jumps in Sediment-Driven Bottom Currents, HY Oct. 93, p1094-1117

Garcia-Navarro, P.
Numerical Modeling of Flood Propagation through System of Reservoirs, with V. Zorraquino, HY Mar. 93, p380-389

Garde, Ramchandra J.
see Kothyari, Umesh C., HY Feb. 92, p323-336

Gill, Mohammad A.
disc. (of Study of Open-Channel Dynamics as Controlled Process, by Yuri A. Ermolin, HY Jan. 92, p59-72), HY Apr. 93, p543-545

Gill, Mohammad Akram
Numerical Solution of Muskingum Equation, HY May 92, p804-809
disc: Multhiah Perumal, HY Sept. 93, p1073-1076
clo: HY Sept. 93, p1076-1078

Gjevik, B.
see Harbitz, C. B., HY Dec. 93, p1325-1342

Golia, Umberto M.
see Greco, Massimo, (disc), HY Oct. 91, p1310-1316

Govindaraju, Rao S.
see Tayfur, Gokmen, HY Jan. 93, p51-63

Graf, Walter H.
see Correia, Luís R.P., HY Mar. 92, p476-494

Greco, Massimo
disc. (of Large Water-Hammer Pressures for Column Separation in Pipelines, by Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316) with Bruno Brunone and Umberto M. Golia, HY Jan. 93, p142-143

Griffiths, George A.
Sediment Translation Waves in Braided Gravel-Bed Rivers, HY Aug. 93, p924-937

Gulliver, John S.
Measurement of Air-Water Oxygen Transfer at Hydraulic Structures, with Alan J. Rindels, HY Mar. 93, p327-349

Hager, Willi H.
see Mazumder, Somendra K., HY Feb. 93, p201-219

Harbitz, C. B.
Numerical Simulations of Large Water Waves due to Landslides, with G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342

Heath, Ronald E.
see Johnson, Billy H., HY Jan. 93, p2-20

Hobbs, Benjamin F.
see Loaiciga, Hugo A., HY Jan. 92, p11-37

Holly, Forrest M., Jr.
see Meselhe, Ehab A., HY Sept. 93, p1021-1039

Hondzo, Midhat
Lake Water Temperature Simulation Model, with Heinz G. Stefan, HY Nov. 93, p1251-1273

Hsieh, Bernard B.
see Johnson, Billy H., HY Jan. 93, p2-20

Huang, L. H.
Dynamic Response of Poroelastic Bed to Water Waves, with C. H. Song, HY Sept. 93, p1003-1020

Hudak, Paul F.
Short-Term Solute Fluctuations in Ground Water: Modeling Implications, HY July 93, p830-837

Imberger, Jörg
see Lemckert, Charles J., HY June 93, p662-679
see Lemckert, Charles J., HY June 93, p680-703
see Stephens, Rohan, HY Apr. 93, p438-457

Jain, Subhash C.
Nonunique Water-Surface Profiles in Open Channels, HY Dec. 93, p1427-1434
see Jun, Kyung Soo, HY Jan. 93, p21-36

Jin, X.
Quasi-3D Numerical Modeling of Shallow-Water Circulation, with C. Kranenburg, HY Apr. 93, p458-472

Jin, Yee-Chung
Predicting Flow in Curved Open Channels by Depth-Averaged Method, with Peter M. Steffler, HY Jan. 93, p109-124

Johns, Derek D.
Riprap Sizing for ARS-Type Low-Drop Stilling Basins, with Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869

Johnson, Billy H.
Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, with Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20

Johnson, Jeff P.
see Neill, Charles R., (disc), HY June 92, p887-903

Johnson, Peggy A.
Assessing Time-Variant Bridge Reliability Due to Pier Scour, with Bilal M. Ayyub, HY June 92, p887-903
disc: Charles R. Neill and Jeff P. Johnson, HY July 93, p872-874
clo: HY July 93, p874

Merging Laboratory and Field Data in Bridge Scour, with J. Sterling Jones, HY Oct. 93, p1176-1181

Johnston, A. J.
Round Buoyant Jet Entering Shallow Water in Motion, with N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382

Jones, J. Sterling
Effects of Footing Location on Bridge Pier Scour, with Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290
disc: Bruce W. Melville, HY Feb. 93, p296-298
disc: Charles R. Neill, HY Feb. 93, p298-299
clo: HY Feb. 93, p299-300
see Johnson, Peggy A., HY Oct. 93, p1176-1181

Joy, Douglas M.
Stochastic Model of Particulate Transport in Porous Medium, with William C. Lennox and Nicholas Kouwen, HY July 93, p846-861

Julien, P. Y.
see O'Brien, J. S., HY Feb. 93, p244-261
see Stein, O. R., HY Jan. 93, p37-50

Jun, Kyung Soo
Oxygen Transfer in Bubbly Turbulent Shear Flow, with Subhash C. Jain, HY Jan. 93, p21-36

Kadavy, Kem C.
see Rice, Charles E., HY Jan. 93, p133-139

Kavvas, M. Levent
see Tayfur, Gokmen, HY Jan. 93, p51-63

Kawanisi, K.
Measurements of Turbulence and Suspended Sediment in Tidal River, with S. Yokosi, HY June 93, p704-724

Kennedy, John F.
see Yeh, Keh-Chia, HY July 93, p776-795
see Yeh, Keh-Chia, HY July 93, p796-815

Kilgore, Roger T.
see Jones, J. Sterling, HY Feb. 92, p280-290

Kim, Keu W.
see Johnson, Billy H., HY Jan. 93, p2-20

Kothyari, Umesh C.
Rainfall Intensity-Duration-Frequency Formula for India, with Ramchandra J. Garde, HY Feb. 92, p323-336
disc: Vito Ferro, HY Aug. 93, p960-962
disc: Stefano Pagliara and Carlo Viti, HY Aug. 93, p962-966
clo: HY Aug. 93, p966-967

Kouwen, Nicholas
see Joy, Douglas M., HY July 93, p846-861

Kranenburg, C.
Gravity-Current Fronts Advancing into Horizontal Ambient Flow, HY Mar. 93, p369-379
see Jin, X., HY Apr. 93, p458-472

Krishnappan, Bommanna G.
see Correia, Luís R.P., HY Mar. 92, p476-494

Krishnappan, Bommanna Gounder
Rotating Circular Flume, HY June 93, p758-767

Kuhnle, Roger A.
Incipient Motion of Sand-Gravel Sediment Mixtures, HY Dec. 93, p1400-1415

Lee, Hong-Yuan
Migration of Rectangular Mining Pit Composed of Uniform Sediments, with Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80

Lee, Kwang K.
see Chen, Ching L., HY Nov. 91, p1531-1550

Lemckert, Charles J.
Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, with Jörg Imberger, HY June 93, p662-679
Energetic Bubble Plumes in Arbitrary Stratification, with Jörg Imberger, HY June 93, p680-703

Lennox, William C.
see Joy, Douglas M., HY July 93, p846-861

Li, K. S.
see Zoppou, C., HY Nov. 93, p1300-1307

Li, Shu-Guang
Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, with Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090
disc: Jian-Jun Zhou, HY Nov. 93, p1310-1312
clo: HY Nov. 93, p1312-1313

Lim, Siow-Yong
disc. (of Local Scour at Bridge Abutments, by B. W. Melville, HY Apr. 92, p615-631), HY Sept. 93, p1066-1069

Lin, Gwo-Fong
see Chiu, Chao-Lin, HY June 93, p742-756

Loaiciga, Hugo A.
Review of Ground-Water Quality Monitoring Network Design, with Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37
disc: James F. Quinlan, Gareth J. Davies and Stephen R. H. Worthington, HY Dec. 93, p1436-1441
clo: HY Dec. 93, p1441-1442

Long, Charles E.
Evaluation of von Karman's Constant from Integral Flow Parameters, with Patricia L. Wiberg and Arthur R. M. Nowell, HY Oct. 93, p1182-1190

Lorena, M.
see Ervine, D. A., HY Dec. 93, p1383-1399

Lu, Jyh-Ming
see Chiu, Chao-Lin, HY June 93, p742-756

Lyn, D. A.
Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, HY Mar. 93, p306-326

Machado, Ludovico Ivan' .sevich
disc. (of Fluctuating Uplift and Lining Design in Spillway Stilling Basins, by Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596), HY Apr. 93, p526-527

Maisner, Michael P.
see Ponce, Victor M., HY June 93, p768-773

Martínez, Fernando
see Pérez, Rafael, HY Feb. 93, p164-180

Mazumder, Bijoy S.
Turbulence in Rivers due to Navigation Traffic, with Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597

Mazumder, Somendra K.
Supercritical Expansion Flow in Rouse Modified and Reversed Transitions, with Willi H. Hager, HY Feb. 93, p201-219

McCutcheon, S. C.
see Wang, P. F., HY Oct. 93, p1170-1175

McCutcheon, Steve C.
disc. (of Great Lakes River-Estuary Hydrodynamic Finite Element Model, by Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550), HY Feb. 93, p292-293

McLaughlin, Dennis
see Li, Shu-Guang, HY Aug. 92, p1079-1090

Melaaen, Morten C.
see Olsen, Nils R. B., HY Sept. 93, p1048-1054

Melville, B. W.
Local Scour at Bridge Abutments, HY Apr. 92, p615-631
disc: Virgilio Fiorotto, HY Sept. 93, p1064-1066
disc: Siow-Yong Lim, HY Sept. 93, p1066-1069
disc: J. R. Richardson and E. V. Richardson, HY Sept. 93, p1069-1071
clo: HY Sept. 93, p1071-1073

Melville, Bruce W.
disc. (of Effects of Footing Location on Bridge Pier Scour, by J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290), HY Feb. 93, p296-298

Meselhe, Ehab A.
Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, with Forrest M. Holly, Jr., HY Sept. 93, p1021-1039

Millar, Robert G.
Effect of Bank Stability on Geometry of Gravel Rivers, with Michael C. Quick, HY Dec. 93, p1343-1363

Mistichelli, Mark P.
see Jones, J. Sterling, HY Feb. 92, p280-290

Mizumura, Kazumasa
Meandering Water Rivulet, HY Nov. 93, p1205-1222
see Crissman, Randy D., HY Nov. 93, p1231-1250

Murty, Tad S.
disc. (of Effects of Sea-Level Rise on Bays and Estuaries, by ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10), HY May 93, p658-660

Nakagawa, Hiroji
see Naot, Dan, HY Mar. 93, p390-408
see Naot, Dan, HY Dec. 93, p1418-1426
see Nezu, Iehisa, HY May 93, p598-614

Naot, Dan
Calculation of Compound-Open-Channel Flow, with Iehisa Nezu and Hiroji Nakagawa, HY Dec. 93, p1418-1426

Hydrodynamic Behavior of Compound Rectangular Open Channels, with Iehisa Nezu and Hiroji Nakagawa, HY Mar. 93, p390-408

Napiorkowski, J. J.
see Dooge, James C. I., (disc), HY Jan. 92, p59-72

Neary, Vincent S.
Three-Dimensional Flow Structure at Open-Channel Diversions, with A. Jacob Odgaard, HY Nov. 93, p1223-1230

Nelli, Charles R.
disc. (of Assessing Time-Variant Bridge Reliability Due to Pier Scour, by Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903) with Jeff P. Johnson, HY July 93, p872-874
disc. (of Effects of Footing Location on Bridge Pier Scour, by J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290), HY Feb. 93, p298-299

Nezu, Iehisa
Field Measurements of Secondary Currents in Straight Rivers, with Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614
see Naot, Dan, HY Mar. 93, p390-408
see Naot, Dan, HY Dec. 93, p1418-1426

Nguyen, N.
see Johnston, A. J., HY Dec. 93, p1364-1382

Nogueira, André Campos
Steady State Fluid Network Analysis, HY Mar. 93, p431-436

Nowell, Arthur R. M.
see Long, Charles E., HY Oct. 93, p1182-1190

O'Brien, J. S.
Two-Dimensional Water Flood and Mudflow Simulation, with P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261
disc. (of Preferred Directions of Flow on Alluvial Fans, by Richard H. French, HY July 92, p1002-1013) with J. E. Fuller, HY Nov. 93, p1316-1318

Odgaard, A. Jacob
see Neary, Vincent S., HY Nov. 93, p1223-1230

Olsen, Nils R. B.
Three-Dimensional Calculation of Scour Around Cylinders, with Morten C. Melaaen, HY Sept. 93, p1048-1054

Ostrowski, Pete, Jr.
see Alavian, Vahid, HY May 92, p688-706

Pacheco-Ceballos, Raul
Bed-Load Coefficients, HY Oct. 92, p1436-1442
err: HY Nov. 93, p1324

Pagliara, Stefano
disc. (of Rainfall Intensity-Duration-Frequency Formula for India, by Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336) with Carlo Viti, HY Aug. 93, p962-966

Panchang, Vijay G.
Inverse Adjoint Estimation of Eddy Viscosity for Coastal Flow Models, with J. E. Richardson, HY Apr. 93, p506-524

Parchure, T. M.
see Sharp, James J., HY May 93, p615-627

Parker, Gary
Sediment Feed and Recirculating Flumes: Fundamental Difference, with Peter R. Wilcock, HY Nov. 93, p1192-1204

Parola, A. C.
Stability of Riprap at Bridge Piers, HY Oct. 93, p1080-1093

Pedersen, G.
see Harbitz, C. B., HY Dec. 93, p1325-1342

Pegram, Geoffrey G. S.
see Pegram, Guy C., HY Feb. 93, p151-163

Pegram, Guy C.
Integration of Rainfall via Multiquadric Surfaces over Polygons, with Geoffrey G. S. Pegram, HY Feb. 93, p151-163

Pérez, Rafael
Improved Design of Branched Networks by Using Pressure-Reducing Valves, with Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180

Perumal, Muthiah
disc. (of Numerical Solution of Muskingum Equation, by Mohammad Akram Gill, HY May 92, p804-809), HY Sept. 93, p1073-1076

Ponce, Victor M.
Verification of Theory of Roll-Wave Formation, with Michael P. Maisner, HY June 93, p768-773

Protopapas, Angelos L.
see Vradis, George C., HY Jan. 93, p95-108

Pugh, Alan
Triple Plate Balanced Resistance Water-Level Gauge, with Gedfrey A. Walters, HY Mar. 93, p424-430

Quick, Michael C.
see Millar, Robert G., HY Dec. 93, p1343-1363

Quinlan, James F.
disc. (of Review of Ground-Water Quality Monitoring Network Design, by Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37) with Gareth J. Davies and Stephen R. H. Worthington, HY Dec. 93, p1436-1441

Rahuel, J. L.
disc. (of Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), by Luís R.P. Correia, Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494), HY Apr. 93, p528-530
disc. (of Routing of Heterogeneous Sediments over Movable Bed: Model Development, by Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262), HY Apr. 93, p540-541

Raines, Timothy H.
Estimation of Flood Frequencies for Ungaged Catchments, with Juan B. Valdés, HY Oct. 93, p1138-1154

Ramamurthy, Amruthur S.
Characteristics of Circular-Crested Weir, with Ngoc-Diep Vo, HY Sept. 93, p1055-1062

Reddy, L. Srinivasa
see Wood, Don J., HY Aug. 93, p949-958

Rice, Charles E.
Protection Against Scour at SAF Stilling Basins, with Kem C. Kadavy, HY Jan. 93, p133-139

Richardson, E. V.
see Richardson, J. R., (disc), HY Apr. 92, p615-631

Richardson, J. E.
see Panchang, Vijay G., HY Apr. 93, p506-524

Richardson, J. R.
disc. (of Local Scour at Bridge Abutments, by B. W. Melville, HY Apr. 92, p615-631) with E. V. Richardson, HY Sept. 93, p1069-1071

Rinaldo, Andrea
see Fiorotto, Virgilio, HY Apr. 92, p578-596

Rindels, Alan J.
see Gulliver, John S., HY Mar. 93, p327-349

Roberts, Philip J. W.
Hydraulic Model Study for Boston Outfall. I: Riser Configuration, with William H. Snyder, HY Sept. 93, p970-987
Hydraulic Model Study for Boston Outfall. II: Environmental Performance, with William H. Snyder, HY Sept. 93, p988-1002

Rouhani, Shahrokh
see Loaiciga, Hugo A., HY Jan. 92, p11-37

Ruff, James F.
see Adam, Ahmed M., HY Aug. 93, p938-948

Savenije, Hubert H. G.
Determination of Estuary Parameters on Basis of Lagrangian Analysis, HY May 93, p628-642

Schladow, S. Geoffrey
Lake Destratification by Bubble-Plume Systems: Design Methodology, HY Mar. 93, p350-368

Sellin, R. H. J.
see Ervine, D. A., HY Dec. 93, p1383-1399

Shafai-Bajestan, Mahmood
Riprap Criteria below Pipe Outlet, with Maurice L. Albertson, HY Feb. 93, p181-200

Sharp, James J.
Selective Withdrawal Using Circular, Partly Submerged Intake Structures, with T. M. Parchure, HY May 93, p615-627

Simpson, Angus R.
Large Water-Hammer Pressures for Column Separation in Pipelines, with E. Benjamin Wylie, HY Oct. 91, p1310-1316
disc: Massimo Greco, Bruno Brunone and Umberto M. Golia, HY Jan. 93, p142-143
clo: HY Jan. 93, p144-145

Slingerland, Rudy L.
see van Niekerk, Andre, HY Feb. 92, p246-262

Snyder, William H.
see Roberts, Philip J. W., HY Sept. 93, p970-987
see Roberts, Philip J. W., HY Sept. 93, p988-1002

Song, C. H.
see Huang, L. H., HY Sept. 93, p1003-1020

Song, Ming-Huang
see Lee, Hong-Yuan, HY Jan. 93, p64-80

Soong, Ta W.
see Mazumder, Bijoy S., HY May 93, p581-597

Stefan, Heinz G.
see Hondzo, Midhat, HY Nov. 93, p1251-1273

Steffler, Peter M.
see Jin, Yee-Chung, HY Jan. 93, p109-124

Stein, O. R.
Criterion Delineating the Mode of Headcut Migration, with P. Y. Julien, HY Jan. 93, p37-50

Stephens, Rohan
Reservoir Destratification via Mechanical Mixers, with Jörg Imberger, HY Apr. 93, p438-457

Stevens, Peter
disc. (of Preferred Directions of Flow on Alluvial Fans, by Richard H. French, HY July 92, p1002-1013), HY Nov. 93, p1318-1320

Storm, Daniel E.
see Tayfur, Gokmen, HY Jan. 93, p51-63

Swamee, Prabhata K.
Generalized Inner Region Velocity Distribution Equation, HY May 93, p651-656

Szymkiewicz, Romuald
Oscillation-Free Solution of Shallow Water Equations for Nonstaggered Grid, HY Oct. 93, p1118-1137

Tan, Soon-Keat
see Chiew, Yee-Meng, HY Jan. 92, p92-97

Tayfur, Gokmen
Applicability of St. Venant Equations for Two-Dimensional Overland Flows over Rough Infiltrating Surfaces, with M. Levent Kavvas, Rao S. Govindaraju and Daniel E. Storm, HY Jan. 93, p51-63

Tien, Hui-Chun
see Tsai, Whey-Fone, HY Nov. 93, p1274-1298

Tominaga, Akihiro
see Nezu, Iehisa, HY May 93, p598-614

Tsai, Whey-Fone
Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, with Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298

Tsihrintzis, Vassilios A.
disc. (of Use of Density Current to Modify Thermal Structure of TVA Reservoirs, by Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706), HY Apr. 93, p532-534

Tung, Yeou-Koung
see Yeh, Keh-Chia, HY Feb. 93, p262-283

Valdés, Juan B.
see Raines, Timothy H., HY Oct. 93, p1138-1154

van Niekerk, Andre
Routing of Heterogeneous Sediments over Movable Bed: Model Development, with Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262
disc: J. L. Rahuel, HY Apr. 93, p540-541
clo: HY Apr. 93, p541

Vela, Antonio
see Pérez, Rafael, HY Feb. 93, p164-180

Venkataraman, Lakshmi
see Li, Shu-Guang, HY Aug. 92, p1079-1090

Viti, Carlo
see Pagliara, Stefano, (disc), HY Feb. 92, p323-336

Vittal, Nandana
Hydraulic Design of Flume Aqueducts, with Fouad Al-Muttair and Majed Subhi Abu-Sharekh, HY Feb. 93, p284-289

Vo, Ngoc-Diep
see Ramamurthy, Amruthur S., HY Sept. 93, p1055-1062

Vogel, Koen R.
see van Niekerk, Andre, HY Feb. 92, p246-262

Volker, R. E.
see Johnston, A. J., HY Dec. 93, p1364-1382

Vradis, George C.
Macroscopic Conductivities for Flow of Bingham Plastics in Porous Media, with Angelos L. Protopapas, HY Jan. 93, p95-108

Walters, Gedfrey A.
see Pugh, Alan, HY Mar. 93, p424-430

Wang, P. F.
Note on Estuary-River Models Using Boundary-Fitted Coordinates, with S. C. McCutcheon, HY Oct. 93, p1170-1175

Wang, Shiqiang
Alluvial Resistance in Transition Regime, with William Rodney White, HY June 93, p725-741

Wasimi, Saleh A.
Estimation of Channel Depth During Floods by Canonical Correlation Analysis, HY Jan. 93, p81-94

Watson, Chester C.
see Johns, Derek D., HY July 93, p864-869

White, William Rodney
see Wang, Shiqiang, HY June 93, p725-741

Wiberg, Patricia L.
see Long, Charles E., HY Oct. 93, p1182-1190

Wiesner, Mark R.
see Chellam, Shankararaman, HY Jan. 93, p126-132

Wilcock, Peter R.
Critical Shear Stress of Natural Sediments, HY Apr. 93, p491-505
see Parker, Gary, HY Nov. 93, p1192-1204

Willetts, B. B.
see Ervine, D. A., HY Dec. 93, p1383-1399

Wong, Tommy S. W.
see Chen, Charng-Ning, HY Sept. 93, p1040-1045

Wood, Don J.
Modeling Pipe Networks Dominated by Junctions, with L. Srinivasa Reddy and J. E. Funk, HY Aug. 93, p949-958

Wood, Ian R.
Asymptotic Solutions and Behavior of Outfall Flumes, HY May 93, p553-580

Wörman, Anders
Seepage-Induced Mass Wasting in Coarse Soil Slopes, HY Oct. 93, p1155-1168

Worthington, Stephen R. H.
see Quinlan, James F., (disc), HY Jan. 92, p11-37

Wu, Chao
Model of Dam-Break Floods for Channels of Arbitrary Cross Section, with Guang-qing Dai and Chigong Wu, HY Aug. 93, p911-923

Wu, Chigong
see Wu, Chao, HY Aug. 93, p911-923

Wylie, E. Benjamin
see Simpson, Angus R., HY Oct. 91, p1310-1316

Yeh, Keh-Chia
Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, with John F. Kennedy, HY July 93, p796-815
Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, with John F. Kennedy, HY July 93, p776-795
Uncertainty and Sensitivity Analyses of Pit-Migration Model, with Yeou-Koung Tung, HY Feb. 93, p262-283

Yen, Ben Chie
Dimensionally Homogeneous Manning's Formula, HY Sept. 92, p1326-1332
disc: B. A. Christensen, HY Dec. 93, p1442-1443
clo: HY Dec. 93, p1443-1445

Yokosi, S.
see Kawanisi, K., HY June 93, p704-724

Yu, Weizu
see Crissman, Randy D., HY Nov. 93, p1231-1250

Zhou, Jian-Jun
disc. (of Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, by Shu-Guang Li, Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090), HY Nov. 93, p1310-1312

Zoppou, C.
A New Point Estimate Method for Water Resources Modeling, with K. S. Li, HY Nov. 93, p1300-1307

Zorraquino, V.
see Garcia-Navarro, P., HY Mar. 93, p380-389

SUBJECT INDEX

Abutments

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Advection

Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, Wheyfone Tsai, Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298.

Aeration

Oxygen Transfer in Bubbly Turbulent Shear Flow, Kyung Soo Jun and Subhash C. Jain, HY Jan. 93, p21-36.

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Air entrainment

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Air water interactions

Measurement of Air-Water Oxygen Transfer at Hydraulic Structures, John S. Gulliver and Alan J. Rindels, HY Mar. 93, p327-349.

Algorithms

Integration of Rainfall via Multiquadric Surfaces over Polygons, Guy C. Pegram and Geoffrey G. S. Pegram, HY Feb. 93, p151-163.

Alluvial channels

Alluvial Resistance in Transition Regime, Shiqiang Wang and William Rodney White, HY June 93, p725-741.

Effect of Bank Stability on Geometry of Gravel Rivers, Robert G. Millar and Michael C. Quick, HY Dec. 93, p1343-1363.

Estimation of Channel Depth During Floods by Canonical Correlation Analysis, Saleh A. Wasimi, HY Jan. 93, p81-94.

Alluvial fans

Preferred Directions of Flow on Alluvial Fans, Richard H. French, HY July 92, p1002-1013.

Two-Dimensional Water Flood and Mudflow Simulation, J. S. O'Brien, P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261.

Alluvial streams

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Sediment Translation Waves in Braided Gravel-Bed Rivers, George A. Griffiths, HY Aug. 93, p924-937.

Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, D. A. Lyn, HY Mar. 93, p306-326.

Alluvium

Determination of Estuary Parameters on Basis of Lagrangian Analysis, Hubert H. G. Savenije, HY May 93, p628-642.

Analysis

Determination of Estuary Parameters on Basis of Lagrangian Analysis, Hubert H. G. Savenije, HY May 93, p628-642.

Nonunique Water-Surface Profiles in Open Channels, Subhash C. Jain, HY Dec. 93, p1427-1434.

Aqueducts

Hydraulic Design of Flume Aqueducts, Nandana Vittal, Fouad Al-Muttair and Majed Subhi Abu-Sharekh, HY Feb. 93, p284-289.

Aquifers

Confined Aquifer Parameters from a Pump Test Near an Impermeable Boundary, Stephen J. Burges, HY July 93, p838-845.

Short-Term Solute Fluctuations in Ground Water: Modeling Implications, Paul F. Hudak, HY July 93, p830-837.

Arid lands

Preferred Directions of Flow on Alluvial Fans, Richard H. French, HY July 92, p1002-1013.

Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, Ehab A. Meselhe and Forrest M. Holly, Jr., HY Sept. 93, p1021-1039.

Axisymmetry

Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, Charles J. Lemckert and Jörg Imberger, HY June 93, p662-679.

Backwater

A New Point Estimate Method for Water Resources Modeling, C. Zoppou and K. S. Li, HY Nov. 93, p1300-1307.

Bank stabilization

Effect of Bank Stability on Geometry of Gravel Rivers, Robert G. Millar and Michael C. Quick, HY Dec. 93, p1343-1363.

Barges

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Bays

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Bed load

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

Sediment Feed and Recirculating Flumes: Fundamental Difference, Gary Parker and Peter R. Wilcock, HY Nov. 93, p1192-1204.

Bed load movement

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Bed material

Routing of Heterogeneous Sediments over Movable Bed: Model Development, Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262.

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Bedforms

Alluvial Resistance in Transition Regime, Shiqiang Wang and William Rodney White, HY June 93, p725-741.

Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, D. A. Lyn, HY Mar. 93, p306-326.

Beds

Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, Ehab A. Meselhe and Forrest M. Holly, Jr., HY Sept. 93, p1021-1039.

Boston

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Boundary conditions

Note on Estuary-River Models Using Boundary-Fitted Coordinates, P. F. Wang and S. C. McCutcheon, HY Oct. 93, p1170-1175.

Boundary layer flow

Evaluation of von Karman's Constant from Integral Flow Parameters, Charles E. Long, Patricia L. Wiberg and Arthur R. M. Nowell, HY Oct. 93, p1182-1190.

Bridge failure

Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Merging Laboratory and Field Data in Bridge Scour, Peggy A. Johnson and J. Sterling Jones, HY Oct. 93, p1176-1181.

Bridges

Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Effects of Footing Location on Bridge Pier Scour, J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290.

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Merging Laboratory and Field Data in Bridge Scour, Peggy A. Johnson and J. Sterling Jones, HY Oct. 93, p1176-1181.

Bridges, piers

Stability of Riprap at Bridge Piers, A. C. Parola, HY Oct. 93, p1080-1093.

Bubbles

Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Oxygen Transfer in Bubbly Turbulent Shear Flow, Kyung Soo Jun and Subhash C. Jain, HY Jan. 93, p21-36.

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Buoyant jets

Asymptotic Solutions and Behavior of Outfall Plumes, Ian R. Wood, HY May 93, p553-580.

Detachment of Buoyant Surface Jets Discharged on Slope, Joseph F. Atkinson, HY Aug. 93, p878-894.

Round Buoyant Jet Entering Shallow Water in Motion, A. J. Johnston, N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382.

Canals

Hydraulic Design of Flume Aqueducts, Nandana Vittal, Fouad Al-Muttair and Majed Subhi Abu-Sharekh, HY Feb. 93, p284-289.

Case reports

Estimation of Flood Frequencies for Ungaged Catchments, Timothy H. Raines and Juan B. Valdés, HY Oct. 93, p1138-1154.

Catchments

Estimation of Flood Frequencies for Ungaged Catchments, Timothy H. Raines and Juan B. Valdés, HY Oct. 93, p1138-1154.

Cavities

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Uncertainty and Sensitivity Analyses of Pit-Migration Model, Keh-Chia Yeh and Yeou-Koung Tung, HY Feb. 93, p262-283.

Channel bends

Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p776-795.

Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Channel design

Sediment Translation Waves in Braided Gravel-Bed Rivers, George A. Griffiths, HY Aug. 93, p924-937.

Channel flow

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Channels, waterways

Characteristics of B-Jump with Different Toe Locations, Ahmed M. Adam, James F. Ruff, Ghassan AlQaser and Steven R. Abt, HY Aug. 93, p938-948.

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Factors Affecting Conveyance in Meandering Compound Flows, D. A. Ervine, B. B. Willetts, R. H. J. Sellin and M. Lorena, HY Dec. 93, p1383-1399.

Incipient Hydraulic Jump at Channel Junctions, George C. Christodoulou, HY Mar. 93, p409-421.

Model of Dam-Break Floods for Channels of Arbitrary Cross Section, Chao Wu, Guang-qing Dai and Chigong Wu, HY Aug. 93, p911-923.

Supercritical Expansion Flow in Rouse Modified and Reversed Transitions, Somendra K. Mazumder and Willi H. Hager, HY Feb. 93, p201-219.

Wave Propagation in Ice-Covered Channels, Steven F. Daly, HY Aug. 93, p895-910.

Chesapeake Bay

Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, Billy H. Johnson, Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20.

Circulation

Inverse Adjoint Estimation of Eddy Viscosity for Coastal Flow Models, Vijay G. Panchang and J. E. Richardson, HY Apr. 93, p506-524.

Quasi-3D Numerical Modeling of Shallow-Water Circulation, X. Jin and C. Kranenburg, HY Apr. 93, p458-472.

Climatic changes

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Coastal engineering

Inverse Adjoint Estimation of Eddy Viscosity for Coastal Flow Models, Vijay G. Panchang and J. E. Richardson, HY Apr. 93, p506-524.

Coefficients

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Cohesive sediment

Rotating Circular Flume, Bommanna Gounder Krishnappan, HY June 93, p758-767.

Cohesive soils

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Columns

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Computation

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Concentration

Short-Term Solute Fluctuations in Ground Water: Modeling Implications, Paul F. Hudak, HY July 93, p830-837.

Contaminants

Short-Term Solute Fluctuations in Ground Water: Modeling Implications, Paul F. Hudak, HY July 93, p830-837.

Control systems

Study of Open-Channel Dynamics as Controlled Process, Yuri A. Ermolin, HY Jan. 92, p59-72.

Cooling water

Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Coordinates

Note on Estuary-River Models Using Boundary-Fitted Coordinates, P. F. Wang and S. C. McCutcheon, HY Oct. 93, p1170-1175.

Correlation analysis

Estimation of Channel Depth During Floods by Canonical Correlation Analysis, Saleh A. Wasimi, HY Jan. 93, p81-94.

Culverts

Riprap Criteria below Pipe Outlet, Mahmood Shafai-Bajestan and Maurice L. Albertson, HY Feb. 93, p181-200.

Currents

Field Measurements of Secondary Currents in Straight Rivers, Iehisa Nezu, Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614.

Gravity-Current Fronts Advancing into Horizontal Ambient Flow, C. Kranenburg, HY Mar. 93, p369-379.

Hydraulic Jumps in Sediment-Driven Bottom Currents, Marcelo H. Garcia, HY Oct. 93, p1094-1117.

Curvature

Predicting Flow in Curved Open Channels by Depth-Averaged Method, Yee-Chung Jin and Peter M. Steffler, HY Jan. 93, p109-124.

Dam breaches

Model of Dam-Break Floods for Channels of Arbitrary Cross Section, Chao Wu, Guang-qing Dai and Chigong Wu, HY Aug. 93, p911-923.

Dams

Energy Dissipation on Stepped Spillways, George C. Christodoulou, HY May 93, p644-650.

Data analysis

Alluvial Resistance in Transition Regime, Shiqiang Wang and William Rodney White, HY June 93, p725-741.

Data collection

Merging Laboratory and Field Data in Bridge Scour, Peggy A. Johnson and J. Sterling Jones, HY Oct. 93, p1176-1181.

Density currents

Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Depth

Applicability of St. Venant Equations for Two-Dimensional Overland Flows over Rough Infiltrating Surfaces, Gokmen Tayfur, M. Levent Kavvas, Rao S. Govindaraju and Daniel E. Storm, HY Jan. 93, p51-63.

Estimation of Channel Depth During Floods by Canonical Correlation Analysis, Saleh A. Wasimi, HY Jan. 93, p81-94.

Design

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Protection Against Scour at SAF Stilling Basins, Charles E. Rice and Kem C. Kadavy, HY Jan. 93, p133-139.

Riprap Sizing for ARS-Type Low-Drop Stilling Basins, Derek D. Johns, Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869.

Triple Plate Balanced Resistance Water-Level Gauge, Alan Pugh and Gedfrey A. Walters, HY Mar. 93, p424-430.

Design criteria

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

Differential equations

Study of Open-Channel Dynamics as Controlled Process, Yuri A. Ermolin, HY Jan. 92, p59-72.

Diffusers

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Diffusion

Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, Whey-Fone Tsai, Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298.

Dilution

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Dimensional analysis

Stability of Riprap at Bridge Piers, A. C. Parola, HY Oct. 93, p1080-1093.

Discharge

Detachment of Buoyant Surface Jets Discharged on Slope, Joseph F. Atkinson, HY Aug. 93, p878-894.

Discharge coefficients

Characteristics of Circular-Crested Weir, Amruthur S. Ramamurthy and Ngoc-Diep Vo, HY Sept. 93, p1055-1062.

Diversion

Three-Dimensional Flow Structure at Open-Channel Diversions, Vincent S. Neary and A. Jacob Odgaard, HY Nov. 93, p1223-1230.

Drawdown

Selective Withdrawal Using Circular, Partly Submerged Intake Structures, James J. Sharp and T. M. Parchure, HY May 93, p615-627.

Drop structures

Riprap Sizing for ARS-Type Low-Drop Stilling Basins, Derek D. Johns, Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869.

Dunes

Alluvial Resistance in Transition Regime, Shiqiang Wang and William Rodney White, HY June 93, p725-741.

Dynamic programming

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Dynamic response

Dynamic Response of Poroelastic Bed to Water Waves, L. H. Huang and C. H. Song, HY Sept. 93, p1003-1020.

Dynamics

Study of Open-Channel Dynamics as Controlled Process, Yuri A. Ermolin, HY Jan. 92, p59-72.

Economics

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Eddy viscosity

Inverse Adjoint Estimation of Eddy Viscosity for Coastal Flow Models, Vijay G. Panchang and J. E. Richardson, HY Apr. 93, p506-524.

Quasi-3D Numerical Modeling of Shallow-Water Circulation, X. Jin and C. Kranenburg, HY Apr. 93, p458-472.

Elastic moduli

Wave Propagation in Ice-Covered Channels, Steven F. Daly, HY Aug. 93, p895-910.

Elasticity

Dynamic Response of Poroelastic Bed to Water Waves, L. H. Huang and C. H. Song, HY Sept. 93, p1003-1020.

Energy

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Energy dissipation

Calculation of Compound-Open-Channel Flow, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Dec. 93, p1418-1426.

Characteristics of B-Jump with Different Toe Locations, Ahmed M. Adam, James F. Ruff, Ghassan AlQaser and Steven R. Abt, HY Aug. 93, p938-948.

Energy Dissipation on Stepped Spillways, George C. Christodoulou, HY May 93, p644-650.

Energy losses

Modeling Pipe Networks Dominated by Junctions, Don J. Wood, L. Srinivasa Reddy and J. E. Funk, HY Aug. 93, p949-958.

Entrainment

Detachment of Buoyant Surface Jets Discharged on Slope, Joseph F. Atkinson, HY Aug. 93, p878-894.

Entropy

Application of Probability and Entropy Concepts in Pipe-Flow Study, Chao-Lin Chiu, Gwo-Fong Lin and Jyh-Ming Lu, HY June 93, p742-756.

Environmental impacts

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Environmental quality

Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, Billy H. Johnson, Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20.

Equations of motion

Evaluation of von Karman's Constant from Integral Flow Parameters, Charles E. Long, Patricia L. Wiberg and Arthur R. M. Nowell, HY Oct. 93, p1182-1190.

Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), Luís R.P. Correia, Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494.

Macroscopic Conductivities for Flow of Bingham Plastics in Porous Media, George C. Vradis and Angelos L. Protopapas, HY Jan. 93, p95-108.

Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, Cheng-lung Chen, HY July 93, p816-829.

Erosion

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Effect of Bank Stability on Geometry of Gravel Rivers, Robert G. Millar and Michael C. Quick, HY Dec. 93, p1343-1363.

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Protection Against Scour at SAF Stilling Basins, Charles E. Rice and Kem C. Kadavy, HY Jan. 93, p133-139.

Riprap Criteria below Pipe Outlet, Mahmood Shafai-Bajestan and Maurice L. Albertson, HY Feb. 93, p181-200.

Seepage-Induced Mass Wasting in Coarse Soil Slopes, Anders Wörman, HY Oct. 93, p1155-1168.

Three-Dimensional Calculation of Scour Around Cylinders, Nils R. B. Olsen and Morten C. Melaaen, HY Sept. 93, p1048-1054.

Estimation

Confined Aquifer Parameters from a Pump Test Near an Impermeable Boundary, Stephen J. Burges, HY July 93, p838-845.

Estimation of Flood Frequencies for Ungaged Catchments, Timothy H. Raines and Juan B. Valdés, HY Oct. 93, p1138-1154.

Inverse Adjoint Estimation of Eddy Viscosity for Coastal Flow Models, Vijay G. Panchang and J. E. Richardson, HY Apr. 93, p506-524.

Estuaries

Determination of Estuary Parameters on Basis of Lagrangian Analysis, Hubert H. G. Savenije, HY May 93, p628-642.

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Note on Estuary-River Models Using Boundary-Fitted Coordinates, P. F. Wang and S. C. McCutcheon, HY Oct. 93, p1170-1175.

Expansion

Supercritical Expansion Flow in Rouse Modified and Reversed Transitions, Somendra K. Mazumder and Willi H. Hager, HY Feb. 93, p201-219.

Field investigations

Merging Laboratory and Field Data in Bridge Scour, Peggy A. Johnson and J. Sterling Jones, HY Oct. 93, p1176-1181.

Field tests

Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Field Measurements of Secondary Currents in Straight Rivers, Iehisa Nezu, Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614.

Frictional Resistance of Overland Flow on Tropical Turfed Slope, Yee-Meng Chiew and Soon-Keat Tan, HY Jan. 92, p92-97.

Filtration

Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Finite difference method

Numerical Simulations of Large Water Waves due to Landslides, C. B. Harbitz, G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342.

Finite differences

Two-Dimensional Water Flood and Mudflow Simulation, J. S. O'Brien, P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261.

Finite element method

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Predicting Flow in Curved Open Channels by Depth-Averaged Method, Yee-Chung Jin and Peter M. Steffler, HY Jan. 93, p109-124.

Fixed-bed models

Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p776-795.

Fjords

Numerical Simulations of Large Water Waves due to Landslides, C. B. Harbitz, G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342.

Flash floods

Preferred Directions of Flow on Alluvial Fans, Richard H. French, HY July 92, p1002-1013.

Flood control

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Flood forecasting

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Separation of Skewness: Reality or Regional Artifact? Fahim Ashkar, Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475.

Flood frequency

Estimation of Flood Frequencies for Ungaged Catchments, Timothy H. Raines and Juan B. Valdés, HY Oct. 93, p1138-1154.

Flood plains

Preferred Directions of Flow on Alluvial Fans, Richard H. French, HY July 92, p1002-1013.

Flood routing

Numerical Solution of Muskingum Equation, Mohammad Akram Gill, HY May 92, p804-809.

Flooding

Two-Dimensional Water Flood and Mudflow Simulation, J. S. O'Brien, P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261.

Floods

Estimation of Channel Depth During Floods by Canonical Correlation Analysis, Saleh A. Wasimi, HY Jan. 93, p81-94.

Separation of Skewness: Reality or Regional Artifact? Fahim Ashkar, Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475.

Flow

Asymptotic Solutions and Behavior of Outfall Flumes, Ian R. Wood, HY May 93, p553-580.

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Gravity-Current Fronts Advancing into Horizontal Ambient Flow, C. Kranenburg, HY Mar. 93, p369-379.

Flow characteristics

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Flow control

Characteristics of Circular-Crested Weir, Amruthur S. Ramamurthy and Ngoc-Diep Vo, HY Sept. 93, p1055-1062.

Flow measurement

Characteristics of Circular-Crested Weir, Amruthur S. Ramamurthy and Ngoc-Diep Vo, HY Sept. 93, p1055-1062.

Quasi-3D Numerical Modeling of Shallow-Water Circulation, X. Jin and C. Kranenburg, HY Apr. 93, p458-472.

Flow profiles

Nonunique Water-Surface Profiles in Open Channels, Subhash C. Jain, HY Dec. 93, p1427-1434.

Flow resistance

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Factors Affecting Conveyance in Meandering Compound Flows, D. A. Ervine, B. B. Willetts, R. H. J. Sellin and M. Lorena, HY Dec. 93, p1383-1399.

Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, Shu-Guang Li, Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090.

Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Flow separation

Detachment of Buoyant Surface Jets Discharged on Slope, Joseph F. Atkinson, HY Aug. 93, p878-894.

Fluid dynamics

Three-Dimensional Calculation of Scour Around Cylinders, Nils R. B. Olsen and Morten C. Melaaen, HY Sept. 93, p1048-1054.

Fluid mechanics

Gravity-Current Fronts Advancing into Horizontal Ambient Flow, C. Kranenburg, HY Mar. 93, p369-379.

Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Macroscopic Conductivities for Flow of Bingham Plastics in Porous Media, George C. Vradis and Angelos L. Protopapas, HY Jan. 93, p95-108.

Flumes

Hydraulic Design of Flume Aqueducts, Nandana Vittal, Fouad Al-Muttair and Majed Subhi Abu-Sharekh, HY Feb. 93, p284-289.

Rotating Circular Flume, Bommanna Gounder Krishnappan, HY June 93, p758-767.

Sediment Feed and Recirculating Flumes: Fundamental Difference, Gary Parker and Peter R. Wilcock, HY Nov. 93, p1192-1204.

Footings

Effects of Footing Location on Bridge Pier Scour, J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290.

Forecasting

Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Free surfaces

Verification of Theory of Roll-Wave Formation, Victor M. Ponce and Michael P. Maisner, HY June 93, p768-773.

Frequency distribution

Estimation of Flood Frequencies for Ungaged Catchments, Timothy H. Raines and Juan B. Valdés, HY Oct. 93, p1138-1154.

Friction factor

Application of Probability and Entropy Concepts in Pipe-Flow Study, Chao-Lin Chiu, Gwo-Fong Lin and Jyh-Ming Lu, HY June 93, p742-756.

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Friction resistance

Frictional Resistance of Overland Flow on Tropical Turfed Slope, Yee-Meng Chiew and Soon-Keat Tan, HY Jan. 92, p92-97.

Froude number

Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, Cheng-lung Chen, HY July 93, p816-829.

Geometry

Effect of Bank Stability on Geometry of Gravel Rivers, Robert G. Millar and Michael C. Quick, HY Dec. 93, p1343-1363.

Incipient Hydraulic Jump at Channel Junctions, George C. Christodoulou, HY Mar. 93, p409-421.

Geomorphology

Seepage-Induced Mass Wasting in Coarse Soil Slopes, Anders Wörman, HY Oct. 93, p1155-1168.

Grain size

Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Routing of Heterogeneous Sediments over Movable Bed: Model Development, Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262.

Grasses

Frictional Resistance of Overland Flow on Tropical Turfed Slope, Yee-Meng Chiew and Soon-Keat Tan, HY Jan. 92, p92-97.

Gravel

Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

Migration of Rectangular Mining Pit Composed of Uniform Sediments, Hong-Yuan Lee, Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80.

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Gravity

Gravity-Current Fronts Advancing into Horizontal Ambient Flow, C. Kranenburg, HY Mar. 93, p369-379.

Great Lakes

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Ground water

Confined Aquifer Parameters from a Pump Test Near an Impermeable Boundary, Stephen J. Burges, HY July 93, p838-845.

Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Ground-water quality

Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Gullies

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Hydraulic design

Hydraulic Design of Flume Aqueducts, Nandana Vittal, Fouad Al-Muttair and Majed Subhi Abu-Sharekh, HY Feb. 93, p284-289.

Hydraulic jump

Characteristics of B-Jump with Different Toe Locations, Ahmed M. Adam, James F. Ruff, Ghassan AlQaser and Steven R. Abt, HY Aug. 93, p938-948.

Hydraulic Jumps in Sediment-Driven Bottom Currents, Marcelo H. Garcia, HY Oct. 93, p1094-1117.

Incipient Hydraulic Jump at Channel Junctions, George C. Christodoulou, HY Mar. 93, p409-421.

Hydraulic models

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Hydraulic networks

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Hydraulic roughness

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Hydraulic structures

Energy Dissipation on Stepped Spillways, George C. Christodoulou, HY May 93, p644-650.

Measurement of Air-Water Oxygen Transfer at Hydraulic Structures, John S. Gulliver and Alan J. Rindels, HY Mar. 93, p327-349.

Hydraulic transients

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Hydraulics

Incipient Hydraulic Jump at Channel Junctions, George C. Christodoulou, HY Mar. 93, p409-421.

Model of Dam-Break Floods for Channels of Arbitrary Cross Section, Chao Wu, Guang-qing Dai and Chigong Wu, HY Aug. 93, p911-923.

Modeling Pipe Networks Dominated by Junctions, Don J. Wood, L. Srinivasa Reddy and J. E. Funk, HY Aug. 93, p949-958.

Protection Against Scour at SAF Stilling Basins, Charles E. Rice and Kem C. Kadavy, HY Jan. 93, p133-139.

Stochastic Model of Particulate Transport in Porous Medium, Douglas M. Joy, William C. Lennox and Nicholas Kouwen, HY July 93, p846-861.

Supercritical Expansion Flow in Rouse Modified and Reversed Transitions, Somendra K. Mazumder and Willi H. Hager, HY Feb. 93, p201-219.

Hydrodynamics

Calculation of Compound-Open-Channel Flow, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Dec. 93, p1418-1426.

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Hydrodynamic Behavior of Compound Rectangular Open Channels, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Mar. 93, p390-408.

Oscillation-Free Solution of Shallow Water Equations for Nonstaggered Grid, Romuald Szymkiewicz, HY Oct. 93, p1118-1137.

Round Buoyant Jet Entering Shallow Water in Motion, A. J. Johnston, N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382.

Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, Billy H. Johnson, Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20.

Hydroelectric power generation

Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Hydrogeology

Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Hydrographs

Numerical Solution of Muskingum Equation, Mohammad Akram Gill, HY May 92, p804-809.

Hydrologic models

A New Point Estimate Method for Water Resources Modeling, C. Zoppou and K. S. Li, HY Nov. 93, p1300-1307.

Hydrology

Two-Dimensional Water Flood and Mudflow Simulation, J. S. O'Brien, P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261.

Ice cover

Wave Propagation in Ice-Covered Channels, Steven F. Daly, HY Aug. 93, p895-910.

Ice disintegration

Wave Propagation in Ice-Covered Channels, Steven F. Daly, HY Aug. 93, p895-910.

Ice formation

Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Impellers

Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Incipient motion

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

India

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Infiltration

Critical Rainfall Duration for Maximum Discharge from Overland Plane, Charng-Ning Chen and Tommy S. W. Wong, HY Sept. 93, p1040-1045.

Inflow

Numerical Solution of Muskingum Equation, Mohammad Akram Gill, HY May 92, p804-809.

Instrumentation

Triple Plate Balanced Resistance Water-Level Gauge, Alan Pugh and Gedfrey A. Walters, HY Mar. 93, p424-430.

Intake structures

Selective Withdrawal Using Circular, Partly Submerged Intake Structures, James J. Sharp and T. M. Parchure, HY May 93, p615-627.

Intakes

Selective Withdrawal Using Circular, Partly Submerged Intake Structures, James J. Sharp and T. M. Parchure, HY May 93, p615-627.

Intrusion

Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, Charles J. Lemckert and Jörg Imberger, HY June 93, p662-679.

Irregular boundaries

Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, Whey-Fone Tsai, Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298.

Irrigation systems

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, Ehab A. Meselhe and Forrest M. Holly, Jr., HY Sept. 93, p1021-1039.

Kinematic wave theory

Critical Rainfall Duration for Maximum Discharge from Overland Plane, Charng-Ning Chen and Tommy S. W. Wong, HY Sept. 93, p1040-1045.

Laboratory tests

Effects of Footing Location on Bridge Pier Scour, J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290.

Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Hydraulic Jumps in Sediment-Driven Bottom Currents, Marcelo H. Garcia, HY Oct. 93, p1094-1117.

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Oxygen Transfer in Bubbly Turbulent Shear Flow, Kyung Soo Jun and Subhash C. Jain, HY Jan. 93, p21-36.

Three-Dimensional Flow Structure at Open-Channel Diversions, Vincent S. Neary and A. Jacob Odgaard, HY Nov. 93, p1223-1230.

Lagrangian functions

Determination of Estuary Parameters on Basis of Lagrangian Analysis, Hubert H. G. Savenije, HY May 93, p628-642.

Lakes

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Lake Water Temperature Simulation Model, Midhat Hondzo and Heinz G. Stefan, HY Nov. 93, p1251-1273.

Laminar flow

Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, Charles J. Lemckert and Jörg Imberger, HY June 93, p662-679.

Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, Cheng-lung Chen, HY July 93, p816-829.

Linings

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

Location

Characteristics of B-Jump with Different Toe Locations, Ahmed M. Adam, James F. Ruff, Ghassan AlQaser and Steven R. Abt, HY Aug. 93, p938-948.

Effects of Footing Location on Bridge Pier Scour, J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290.

Mass transport

Short-Term Solute Fluctuations in Ground Water: Modeling Implications, Paul F. Hudak, HY July 93, p830-837.

Mathematical models

Model of Dam-Break Floods for Channels of Arbitrary Cross Section, Chao Wu, Guang-qing Dai and Chigong Wu, HY Aug. 93, p911-923.

Oscillation-Free Solution of Shallow Water Equations for Nonstaggered Grid, Romuald Szymkiewicz, HY Oct. 93, p1118-1137.

Predicting Flow in Curved Open Channels by Depth-Averaged Method, Yee-Chung Jin and Peter M. Steffler, HY Jan. 93, p109-124.

Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Meandering streams

Factors Affecting Conveyance in Meandering Compound Flows, D. A. Ervine, B. B. Willetts, R. H. J. Sellin and M. Lorena, HY Dec. 93, p1383-1399.

Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Meanders

Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p776-795.

Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Measurement

Measurement of Air-Water Oxygen Transfer at Hydraulic Structures, John S. Gulliver and Alan J. Rindels, HY Mar. 93, p327-349.

Measurements of Turbulence and Suspended Sediment in Tidal River, K. Kawanisi and S. Yokosi, HY June 93, p704-724.

Measuring instruments

Triple Plate Balanced Resistance Water-Level Gauge, Alan Pugh and Gedfrey A. Walters, HY Mar. 93, p424-430.

Mechanics
Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Membranes
Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Migration
Migration of Rectangular Mining Pit Composed of Uniform Sediments, Hong-Yuan Lee, Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80.

Uncertainty and Sensitivity Analyses of Pit-Migration Model, Keh-Chia Yeh and Yeou-Koung Tung, HY Feb. 93, p262-283.

Mining
Migration of Rectangular Mining Pit Composed of Uniform Sediments, Hong-Yuan Lee, Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80.

Mixing
Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Round Buoyant Jet Entering Shallow Water in Motion, A. J. Johnston, N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382.

Selective Withdrawal Using Circular, Partly Submerged Intake Structures, James J. Sharp and T. M. Parchure, HY May 93, p615-627.

Mixtures
Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

Model verification
Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, Billy H. Johnson, Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20.

Modeling
Applicability of St. Venant Equations for Two-Dimensional Overland Flows over Rough Infiltrating Surfaces, Gokmen Tayfur, M. Levent Kavvas, Rao S. Govindaraju and Daniel E. Storm, HY Jan. 93, p51-63.

Hydrodynamic Behavior of Compound Rectangular Open Channels, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Mar. 93, p390-408.

Modeling Pipe Networks Dominated by Junctions, Don J. Wood, L. Srinivasa Reddy and J. E. Funk, HY Aug. 93, p949-958.

A New Point Estimate Method for Water Resources Modeling, C. Zoppou and K. S. Li, HY Nov. 93, p1300-1307.

Routing of Heterogeneous Sediments over Movable Bed: Model Development, Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262.

Short-Term Solute Fluctuations in Ground Water: Modeling Implications, Paul F. Hudak, HY July 93, p830-837.

Triple Plate Balanced Resistance Water-Level Gauge, Alan Pugh and Gedfrey A. Walters, HY Mar. 93, p424-430.

Models
Asymptotic Solutions and Behavior of Outfall Flumes, Ian R. Wood, HY May 93, p553-580.

Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), Luís R.P. Correia, Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494.

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Note on Estuary-River Models Using Boundary-Fitted Coordinates, P. F. Wang and S. C. McCutcheon, HY Oct. 93, p1170-1175.

Uncertainty and Sensitivity Analyses of Pit-Migration Model, Keh-Chia Yeh and Yeou-Koung Tung, HY Feb. 93, p262-283.

Monitoring
Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Morphology
Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Navier-Stokes equations
Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Navigation
Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Network analysis
Steady State Fluid Network Analysis, André Campos Nogueira, HY Mar. 93, p431-436.

Network design
Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Niagara River
Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Nuclear power plants
Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Numerical analysis

Applicability of St. Venant Equations for Two-Dimensional Overland Flows over Rough Infiltrating Surfaces, Gokmen Tayfur, M. Levent Kavvas, Rao S. Govindaraju and Daniel E. Storm, HY Jan. 93, p51-63.

Calculation of Compound-Open-Channel Flow, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Dec. 93, p1418-1426.

Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, Wheyfone Tsai, Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298.

Oscillation-Free Solution of Shallow Water Equations for Nonstaggered Grid, Romuald Szymkiewicz, HY Oct. 93, p1118-1137.

Numerical calculations

Numerical Solution of Muskingum Equation, Mohammad Akram Gill, HY May 92, p804-809.

Numerical models

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Numerical Simulations of Large Water Waves due to Landslides, C. B. Harbitz, G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342.

Quasi-3D Numerical Modeling of Shallow-Water Circulation, X. Jin and C. Kranenburg, HY Apr. 93, p458-472.

Routing of Heterogeneous Sediments over Movable Bed: Model Development, Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262.

Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, Ehab A. Meselhe and Forrest M. Holly, Jr., HY Sept. 93, p1021-1039.

Three-Dimensional Calculation of Scour Around Cylinders, Nils R. B. Olsen and Morten C. Melaaen, HY Sept. 93, p1048-1054.

Open channel flow

Calculation of Compound-Open-Channel Flow, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Dec. 93, p1418-1426.

Incipient Hydraulic Jump at Channel Junctions, George C. Christodoulou, HY Mar. 93, p409-421.

Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p776-795.

Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Nonunique Water-Surface Profiles in Open Channels, Subhash C. Jain, HY Dec. 93, p1427-1434.

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, Shu-Guang Li, Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090.

Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, D. A. Lyn, HY Mar. 93, p306-326.

Verification of Theory of Roll-Wave Formation, Victor M. Ponce and Michael P. Maisner, HY June 93, p768-773.

Open channels

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Hydrodynamic Behavior of Compound Rectangular Open Channels, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Mar. 93, p390-408.

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Predicting Flow in Curved Open Channels by Depth-Averaged Method, Yee-Chung Jin and Peter M. Steffler, HY Jan. 93, p109-124.

Study of Open-Channel Dynamics as Controlled Process, Yuri A. Ermolin, HY Jan. 92, p59-72.

Three-Dimensional Flow Structure at Open-Channel Diversions, Vincent S. Neary and A. Jacob Odgaard, HY Nov. 93, p1223-1230.

Optimal design

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Optimization

Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Outfall sewers

Asymptotic Solutions and Behavior of Outfall Flumes, Ian R. Wood, HY May 93, p553-580.

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Round Buoyant Jet Entering Shallow Water in Motion, A. J. Johnston, N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382.

Outflows

Numerical Solution of Muskingum Equation, Mohammad Akram Gill, HY May 92, p804-809.

Overflow

Characteristics of Circular-Crested Weir, Amruthur S. Ramamurthy and Ngoc-Diep Vo, HY Sept. 93, p1055-1062.

Overland flow

Applicability of St. Venant Equations for Two-Dimensional Overland Flows over Rough Infiltrating Surfaces, Gokmen Tayfur, M. Levent Kavvas, Rao S. Govindaraju and Daniel E. Storm, HY Jan. 93, p51-63.

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Critical Rainfall Duration for Maximum Discharge from Overland Plane, Charng-Ning Chen and Tommy S. W. Wong, HY Sept. 93, p1040-1045.

Frictional Resistance of Overland Flow on Tropical Turfed Slope, Yee-Meng Chiew and Soon-Keat Tan, HY Jan. 92, p92-97.

Oxygen transfer

Measurement of Air-Water Oxygen Transfer at Hydraulic Structures, John S. Gulliver and Alan J. Rindels, HY Mar. 93, p327-349.

Oxygen Transfer in Bubbly Turbulent Shear Flow, Kyung Soo Jun and Subhash C. Jain, HY Jan. 93, p21-36.

Oxygenation

Oxygen Transfer in Bubbly Turbulent Shear Flow, Kyung Soo Jun and Subhash C. Jain, HY Jan. 93, p21-36.

Parameters

Confined Aquifer Parameters from a Pump Test Near an Impermeable Boundary, Stephen J. Burges, HY July 93, p838-845.

Particle size

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Particulate media

Stochastic Model of Particulate Transport in Porous Medium, Douglas M. Joy, William C. Lennox and Nicholas Kouwen, HY July 93, p846-861.

Piers

Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Effects of Footing Location on Bridge Pier Scour, J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290.

Piezometric head

Steady State Fluid Network Analysis, André Campos Nogueira, HY Mar. 93, p431-436.

Pipe flow

Application of Probability and Entropy Concepts in Pipe-Flow Study, Chao-Lin Chiu, Gwo-Fong Lin and Jyh-Ming Lu, HY June 93, p742-756.

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Evaluation of von Karman's Constant from Integral Flow Parameters, Charles E. Long, Patricia L. Wiberg and Arthur R. M. Nowell, HY Oct. 93, p1182-1190.

Steady State Fluid Network Analysis, André Campos Nogueira, HY Mar. 93, p431-436.

Pipe networks

Modeling Pipe Networks Dominated by Junctions, Don J. Wood, L. Srinivasa Reddy and J. E. Funk, HY Aug. 93, p949-958.

Steady State Fluid Network Analysis, André Campos Nogueira, HY Mar. 93, p431-436.

Pipelines

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Steady State Fluid Network Analysis, André Campos Nogueira, HY Mar. 93, p431-436.

Plumes

Asymptotic Solutions and Behavior of Outfall Plumes, Ian R. Wood, HY May 93, p553-580.

Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Plunging flow

Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Porosity

Dynamic Response of Poroelastic Bed to Water Waves, L. H. Huang and C. H. Song, HY Sept. 93, p1003-1020.

Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Porous media

Macroscopic Conductivities for Flow of Bingham Plastics in Porous Media, George C. Vradis and Angelos L. Protopapas, HY Jan. 93, p95-108.

Stochastic Model of Particulate Transport in Porous Medium, Douglas M. Joy, William C. Lennox and Nicholas Kouwen, HY July 93, p846-861.

Porous media flow

Dynamic Response of Poroelastic Bed to Water Waves, L. H. Huang and C. H. Song, HY Sept. 93, p1003-1020.

Macroscopic Conductivities for Flow of Bingham Plastics in Porous Media, George C. Vradis and Angelos L. Protopapas, HY Jan. 93, p95-108.

Pressure distribution

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

Pressure reduction

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Pressures

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Probability

Application of Probability and Entropy Concepts in Pipe-Flow Study, Chao-Lin Chiu, Gwo-Fong Lin and Jyh-Ming Lu, HY June 93, p742-756.

Propellers

Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Protective structures

Protection Against Scour at SAF Stilling Basins, Charles E. Rice and Kem C. Kadavy, HY Jan. 93, p133-139.

Rain gages

Integration of Rainfall via Multiquadric Surfaces over Polygons, Guy C. Pegram and Geoffrey G. S. Pegram, HY Feb. 93, p151-163.

Rainfall

Integration of Rainfall via Multiquadric Surfaces over Polygons, Guy C. Pegram and Geoffrey G. S. Pegram, HY Feb. 93, p151-163.

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Rainfall duration

Critical Rainfall Duration for Maximum Discharge from Overland Plane, Charng-Ning Chen and Tommy S. W. Wong, HY Sept. 93, p1040-1045.

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Rainfall frequency

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Rainfall intensity

Critical Rainfall Duration for Maximum Discharge from Overland Plane, Charng-Ning Chen and Tommy S. W. Wong, HY Sept. 93, p1040-1045.

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Regional analysis

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Reliability analysis

Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Reservoir systems

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Reservoirs

Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, Charles J. Lemckert and Jörg Imberger, HY June 93, p662-679.

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Measurement of Air-Water Oxygen Transfer at Hydraulic Structures, John S. Gulliver and Alan J. Rindels, HY Mar. 93, p327-349.

Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Resistance

Alluvial Resistance in Transition Regime, Shiqiang Wang and William Rodney White, HY June 93, p725-741.

Resistance coefficients

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Riprap

Protection Against Scour at SAF Stilling Basins, Charles E. Rice and Kem C. Kadavy, HY Jan. 93, p133-139.

Riprap Criteria below Pipe Outlet, Mahmood Shafai-Bajestan and Maurice L. Albertson, HY Feb. 93, p181-200.

Riprap Sizing for ARS-Type Low-Drop Stilling Basins, Derek D. Johns, Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869.

Stability of Riprap at Bridge Piers, A. C. Parola, HY Oct. 93, p1080-1093.

River beds

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Migration of Rectangular Mining Pit Composed of Uniform Sediments, Hong-Yuan Lee, Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80.

Sediment Translation Waves in Braided Gravel-Bed Rivers, George A. Griffiths, HY Aug. 93, p924-937.

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Uncertainty and Sensitivity Analyses of Pit-Migration Model, Keh-Chia Yeh and Yeou-Koung Tung, HY Feb. 93, p262-283.

River systems

Factors Affecting Conveyance in Meandering Compound Flows, D. A. Ervine, B. B. Willetts, R. H. J. Sellin and M. Lorena, HY Dec. 93, p1383-1399.

Rivers

Effect of Bank Stability on Geometry of Gravel Rivers, Robert G. Millar and Michael C. Quick, HY Dec. 93, p1343-1363.

Field Measurements of Secondary Currents in Straight Rivers, Iehisa Nezu, Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614.

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Hydraulic Design of Flume Aqueducts, Nandana Vittal, Fouad Al-Muttair and Majed Subhi Abu-Sharekh, HY Feb. 93, p284-289.

Measurements of Turbulence and Suspended Sediment in Tidal River, K. Kawanisi and S. Yokosi, HY June 93, p704-724.

Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p776-795.

Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Note on Estuary-River Models Using Boundary-Fitted Coordinates, P. F. Wang and S. C. McCutcheon, HY Oct. 93, p1170-1175.

Sediment Feed and Recirculating Flumes: Fundamental Difference, Gary Parker and Peter R. Wilcock, HY Nov. 93, p1192-1204.

Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, Shu-Guang Li, Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090.

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, D. A. Lyn, HY Mar. 93, p306-326.

Rockfill structures

Seepage-Induced Mass Wasting in Coarse Soil Slopes, Anders Wörman, HY Oct. 93, p1155-1168.

Rotation

Rotating Circular Flume, Bommanna Gounder Krishnappan, HY June 93, p758-767.

Roughness

Dimensionally Homogeneous Manning's Formula, Ben Chie Yen, HY Sept. 92, p1326-1332.

Generalized Inner Region Velocity Distribution Equation, Prabhata K. Swamee, HY May 93, p651-656.

Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, Shu-Guang Li, Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090.

Salt water intrusion

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Sampling

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Sand

Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

Migration of Rectangular Mining Pit Composed of Uniform Sediments, Hong-Yuan Lee, Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80.

Scale models

Factors Affecting Conveyance in Meandering Compound Flows, D. A. Ervine, B. B. Willetts, R. H. J. Sellin and M. Lorena, HY Dec. 93, p1383-1399.

Riprap Sizing for ARS-Type Low-Drop Stilling Basins, Derek D. Johns, Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869.

Scour

Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Effects of Footing Location on Bridge Pier Scour, J. Sterling Jones, Roger T. Kilgore and Mark P. Mistichelli, HY Feb. 92, p280-290.

Estimation of Channel Depth During Floods by Canonical Correlation Analysis, Saleh A. Wasimi, HY Jan. 93, p81-94.

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Merging Laboratory and Field Data in Bridge Scour, Peggy A. Johnson and J. Sterling Jones, HY Oct. 93, p1176-1181.

Riprap Criteria below Pipe Outlet, Mahmood Shafai-Bajestan and Maurice L. Albertson, HY Feb. 93, p181-200.

Stability of Riprap at Bridge Piers, A. C. Parola, HY Oct. 93, p1080-1093.

Three-Dimensional Calculation of Scour Around Cylinders, Nils R. B. Olsen and Morten C. Melaaen, HY Sept. 93, p1048-1054.

Sea level

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Secondary flow

Field Measurements of Secondary Currents in Straight Rivers, Iehisa Nezu, Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614.

Predicting Flow in Curved Open Channels by Depth-Averaged Method, Yee-Chung Jin and Peter M. Steffler, HY Jan. 93, p109-124.

Three-Dimensional Flow Structure at Open-Channel Diversions, Vincent S. Neary and A. Jacob Odgaard, HY Nov. 93, p1223-1230.

Sediment

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Sediment transport

Bed-Load Coefficients, Raul Pacheco-Ceballos, HY Oct. 92, p1436-1442.

Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Effect of Bank Stability on Geometry of Gravel Rivers, Robert G. Millar and Michael C. Quick, HY Dec. 93, p1343-1363.

Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), Luís R.P. Correia, Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494.

Hydraulic Jumps in Sediment-Driven Bottom Currents, Marcelo H. Garcia, HY Oct. 93, p1094-1117.

Incipient Motion of Sand-Gravel Sediment Mixtures, Roger A. Kuhnle, HY Dec. 93, p1400-1415.

Measurements of Turbulence and Suspended Sediment in Tidal River, K. Kawanisi and S. Yokosi, HY June 93, p704-724.

Migration of Rectangular Mining Pit Composed of Uniform Sediments, Hong-Yuan Lee, Deng-Tsuang Fu and Ming-Huang Song, HY Jan. 93, p64-80.

Rotating Circular Flume, Bommanna Gounder Krishnappan, HY June 93, p758-767.

Routing of Heterogeneous Sediments over Movable Bed: Model Development, Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262.

Sediment Feed and Recirculating Flumes: Fundamental Difference, Gary Parker and Peter R. Wilcock, HY Nov. 93, p1192-1204.

Sediment Translation Waves in Braided Gravel-Bed Rivers, George A. Griffiths, HY Aug. 93, p924-937.

Stochastic Model of Particulate Transport in Porous Medium, Douglas M. Joy, William C. Lennox and Nicholas Kouwen, HY July 93, p846-861.

Three-Dimensional Calculation of Scour Around Cylinders, Nils R. B. Olsen and Morten C. Melaaen, HY Sept. 93, p1048-1054.

Three-Dimensional Flow Structure at Open-Channel Diversions, Vincent S. Neary and A. Jacob Odgaard, HY Nov. 93, p1223-1230.

Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, D. A. Lyn, HY Mar. 93, p306-326.

Sediment yield

Sediment Translation Waves in Braided Gravel-Bed Rivers, George A. Griffiths, HY Aug. 93, p924-937.

Sedimentation

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Seepage

Seepage-Induced Mass Wasting in Coarse Soil Slopes, Anders Wörman, HY Oct. 93, p1155-1168.

Sensitivity analysis

Uncertainty and Sensitivity Analyses of Pit-Migration Model, Keh-Chia Yeh and Yeou-Koung Tung, HY Feb. 93, p262-283.

Separation

Separation of Skewness: Reality or Regional Artifact? Fahim Ashkar, Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475.

Shallow water

Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Oscillation-Free Solution of Shallow Water Equations for Nonstaggered Grid, Romuald Szymkiewicz, HY Oct. 93, p1118-1137.

Quasi-3D Numerical Modeling of Shallow-Water Circulation, X. Jin and C. Kranenburg, HY Apr. 93, p458-472.

Round Buoyant Jet Entering Shallow Water in Motion, A. J. Johnston, N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382.

Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, Cheng-lung Chen, HY July 93, p816-829.

Shear stress

Critical Shear Stress of Natural Sediments, Peter R. Wilcock, HY Apr. 93, p491-505.

Measurements of Turbulence and Suspended Sediment in Tidal River, K. Kawanisi and S. Yokosi, HY June 93, p704-724.

Rotating Circular Flume, Bommanna Gounder Krishnappan, HY June 93, p758-767.

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Shock waves

Supercritical Expansion Flow in Rouse Modified and Reversed Transitions, Somendra K. Mazumder and Willi H. Hager, HY Feb. 93, p201-219.

Simulation

Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, Ehab A. Meselhe and Forrest M. Holly, Jr., HY Sept. 93, p1021-1039.

Simulation models

Lake Water Temperature Simulation Model, Midhat Hondzo and Heinz G. Stefan, HY Nov. 93, p1251-1273.

Size effect

Sediment Feed and Recirculating Flumes: Fundamental Difference, Gary Parker and Peter R. Wilcock, HY Nov. 93, p1192-1204.

Skewness

Separation of Skewness: Reality or Regional Artifact? Fahim Ashkar, Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475.

Slides

Numerical Simulations of Large Water Waves due to Landslides, C. B. Harbitz, G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342.

Slip

Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Slope stability

Seepage-Induced Mass Wasting in Coarse Soil Slopes, Anders Wörman, HY Oct. 93, p1155-1168.

Slopes

Characteristics of B-Jump with Different Toe Locations, Ahmed M. Adam, James F. Ruff, Ghassan AlQaser and Steven R. Abt, HY Aug. 93, p938-948.

Spatial data

Integration of Rainfall via Multiquadric Surfaces over Polygons, Guy C. Pegram and Geoffrey G. S. Pegram, HY Feb. 93, p151-163.

Specific energy

Nonunique Water-Surface Profiles in Open Channels, Subhash C. Jain, HY Dec. 93, p1427-1434.

Spillways

Energy Dissipation on Stepped Spillways, George C. Christodoulou, HY May 93, p644-650.

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

Riprap Criteria below Pipe Outlet, Mahmood Shafai-Bajestan and Maurice L. Albertson, HY Feb. 93, p181-200.

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Stability

Criterion Delineating the Mode of Headcut Migration, O. R. Stein and P. Y. Julien, HY Jan. 93, p37-50.

Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Stability of Riprap at Bridge Piers, A. C. Parola, HY Oct. 93, p1080-1093.

Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, Cheng-lung Chen, HY July 93, p816-829.

Stability analysis

Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), Luís R.P. Correia, Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494.

Riprap Sizing for ARS-Type Low-Drop Stilling Basins, Derek D. Johns, Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869.

Verification of Theory of Roll-Wave Formation, Victor M. Ponce and Michael P. Maisner, HY June 93, p768-773.

State-of-the-art reviews

Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Statistical analysis

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

A New Point Estimate Method for Water Resources Modeling, C. Zoppou and K. S. Li, HY Nov. 93, p1300-1307.

Statistical distributions

Separation of Skewness: Reality or Regional Artifact? Fahim Ashkar, Bernard Bobée and Jacques Bernier, HY Mar. 92, p460-475.

Statistics

Review of Ground-Water Quality Monitoring Network Design, Hugo A. Loaiciga, Randall J. Charbeneau, Lorne G. Everett, Graham E. Fogg, Benjamin F. Hobbs and Shahrokh Rouhani, HY Jan. 92, p11-37.

Steady state

Steady State Fluid Network Analysis, André Campos Nogueira, HY Mar. 93, p431-436.

Stilling basins

Energy Dissipation on Stepped Spillways, George C. Christodoulou, HY May 93, p644-650.

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

Protection Against Scour at SAF Stilling Basins, Charles E. Rice and Kem C. Kadavy, HY Jan. 93, p133-139.

Riprap Sizing for ARS-Type Low-Drop Stilling Basins, Derek D. Johns, Steven R. Abt, Chester C. Watson and Phil G. Combs, HY July 93, p864-869.

Stochastic models

Stochastic Model of Particulate Transport in Porous Medium, Douglas M. Joy, William C. Lennox and Nicholas Kouwen, HY July 93, p846-861.

Uncertainties in Flow Modeling and Forecasting for Niagara, Randy D. Crissman, Chao-Lin Chiu, Weizu Yu, Kazumasa Mizumura and Ion Corbu, HY Nov. 93, p1231-1250.

Stochastic processes

Stochastic Theory for Irregular Stream Modeling. Part I: Flow Resistance, Shu-Guang Li, Lakshmi Venkataraman and Dennis McLaughlin, HY Aug. 92, p1079-1090.

Stratification

Energetic Bubble Plumes in Arbitrary Stratification, Charles J. Lemckert and Jörg Imberger, HY June 93, p680-703.

Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Selective Withdrawal Using Circular, Partly Submerged Intake Structures, James J. Sharp and T. M. Parchure, HY May 93, p615-627.

Stratified flow

Gravity-Current Fronts Advancing into Horizontal Ambient Flow, C. Kranenburg, HY Mar. 93, p369-379.

Streambeds

Routing of Heterogeneous Sediments over Movable Bed: Model Development, Andre van Niekerk, Koen R. Vogel, Rudy L. Slingerland and John S. Bridge, HY Feb. 92, p246-262.

Surface Sampling in Gravel Streams, Jon B. Fripp and Panayiotis Diplas, HY Apr. 93, p473-490.

Stress
Calculation of Compound-Open-Channel Flow, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Dec. 93, p1418-1426.

Structural reliability
Assessing Time-Variant Bridge Reliability Due to Pier Scour, Peggy A. Johnson and Bilal M. Ayyub, HY June 92, p887-903.

Submerged flow
Hydraulic Jumps in Sediment-Driven Bottom Currents, Marcelo H. Garcia, HY Oct. 93, p1094-1117.

Supercritical flow
Incipient Hydraulic Jump at Channel Junctions, George C. Christodoulou, HY Mar. 93, p409-421.

Supercritical Expansion Flow in Rouse Modified and Reversed Transitions, Somendra K. Mazumder and Willi H. Hager, HY Feb. 93, p201-219.

Surface jets
Detachment of Buoyant Surface Jets Discharged on Slope, Joseph F. Atkinson, HY Aug. 93, p878-894.

Surface roughness
Generalized Inner Region Velocity Distribution Equation, Prabhata K. Swamee, HY May 93, p651-656.

Surface tension
Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Tailwater
Riprap Criteria below Pipe Outlet, Mahmood Shafai-Bajestan and Maurice L. Albertson, HY Feb. 93, p181-200.

Temperature
Lake Water Temperature Simulation Model, Midhat Hondzo and Heinz G. Stefan, HY Nov. 93, p1251-1273.

Temperature effects
Effects of Sea-Level Rise on Bays and Estuaries, ASCE Task Committee on Sea-Level Rise and Its Effects on Bays and Estuaries, HY Jan. 92, p1-10.

Theories
Unique Laminar-Flow Stability Limit Based on Shallow-Water Theory, Cheng-lung Chen, HY July 93, p816-829.

Thermal factors
Use of Density Current to Modify Thermal Structure of TVA Reservoirs, Vahid Alavian and Pete Ostrowski, Jr., HY May 92, p688-706.

Thermal stratification
Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, Charles J. Lemckert and Jörg Imberger, HY June 93, p662-679.

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Three-dimensional analysis
Three-Dimensional Calculation of Scour Around Cylinders, Nils R. B. Olsen and Morten C. Melaaen, HY Sept. 93, p1048-1054.

Three-dimensional flow
Hydrodynamic Behavior of Compound Rectangular Open Channels, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Mar. 93, p390-408.

Three-Dimensional Flow Structure at Open-Channel Diversions, Vincent S. Neary and A. Jacob Odgaard, HY Nov. 93, p1223-1230.

Three-dimensional models
Inverse Adjoint Estimation of Eddy Viscosity for Coastal Flow Models, Vijay G. Panchang and J. E. Richardson, HY Apr. 93, p506-524.

Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, Billy H. Johnson, Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20.

Tidal hydraulics
Determination of Estuary Parameters on Basis of Lagrangian Analysis, Hubert H. G. Savenije, HY May 93, p628-642.

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Tidal waters
Measurements of Turbulence and Suspended Sediment in Tidal River, K. Kawanisi and S. Yokosi, HY June 93, p704-724.

Topography
Applicability of St. Venant Equations for Two-Dimensional Overland Flows over Rough Infiltrating Surfaces, Gokmen Tayfur, M. Levent Kavvas, Rao S. Govindaraju and Daniel E. Storm, HY Jan. 93, p51-63.

Transfer functions
Study of Open-Channel Dynamics as Controlled Process, Yuri A. Ermolin, HY Jan. 92, p59-72.

Transition points
Alluvial Resistance in Transition Regime, Shiqiang Wang and William Rodney White, HY June 93, p725-741.

Transport phenomena
Short-Term Solute Fluctuations in Ground Water: Modeling Implications, Paul F. Hudak, HY July 93, p830-837.

Tsunamis
Numerical Simulations of Large Water Waves due to Landslides, C. B. Harbitz, G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342.

Turbidity
Hydraulic Jumps in Sediment-Driven Bottom Currents, Marcelo H. Garcia, HY Oct. 93, p1094-1117.

Turbines
Oxygen Transfer in Bubbly Turbulent Shear Flow, Kyung Soo Jun and Subhash C. Jain, HY Jan. 93, p21-36.

Turbulence

Field Measurements of Secondary Currents in Straight Rivers, Iehisa Nezu, Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614.

Measurements of Turbulence and Suspended Sediment in Tidal River, K. Kawanisi and S. Yokosi, HY June 93, p704-724.

Self-Aerated Flows on Chutes and Spillways, H. Chanson, HY Feb. 93, p220-243.

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Turbulence Measurements in Open-Channel Flows over Artificial Bed Forms, D. A. Lyn, HY Mar. 93, p306-326.

Turbulent boundary layers

Generalized Inner Region Velocity Distribution Equation, Prabhata K. Swamee, HY May 93, p651-656.

Turbulent diffusion

Lake Water Temperature Simulation Model, Midhat Hondzo and Heinz G. Stefan, HY Nov. 93, p1251-1273.

Turbulent flow

Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids, Charles J. Lemckert and Jörg Imberger, HY June 93, p662-679.

Evaluation of von Karman's Constant from Integral Flow Parameters, Charles E. Long, Patricia L. Wiberg and Arthur R. M. Nowell, HY Oct. 93, p1182-1190.

Hydrodynamic Behavior of Compound Rectangular Open Channels, Dan Naot, Iehisa Nezu and Hiroji Nakagawa, HY Mar. 93, p390-408.

Moment Model of Nonuniform Channel-Bend Flow. I: Fixed Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p776-795.

Moment Model of Nonuniform Channel-Bend Flow. II: Erodible Beds, Keh-Chia Yeh and John F. Kennedy, HY July 93, p796-815.

Stochastic Model of Particulate Transport in Porous Medium, Douglas M. Joy, William C. Lennox and Nicholas Kouwen, HY July 93, p846-861.

Turf grasses

Frictional Resistance of Overland Flow on Tropical Turfed Slope, Yee-Meng Chiew and Soon-Keat Tan, HY Jan. 92, p92-97.

Two-dimensional flow

Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, Whey-Fone Tsai, Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298.

Two-dimensional models

Two-Dimensional Water Flood and Mudflow Simulation, J. S. O'Brien, P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261.

Uncertainty analysis

A New Point Estimate Method for Water Resources Modeling, C. Zoppou and K. S. Li, HY Nov. 93, p1300-1307.

Uncertainty and Sensitivity Analyses of Pit-Migration Model, Keh-Chia Yeh and Yeou-Koung Tung, HY Feb. 93, p262-283.

Unsaturated flow

Finite Analytic Numerical Solutions for Unsaturated Flow with Irregular Boundaries, Whey-Fone Tsai, Ching-Jen Chen and Hui-Chun Tien, HY Nov. 93, p1274-1298.

Unsteady flow

Fully Coupled Unsteady Mobile Boundary Flow Model (FCM), Luís R.P. Correia, Bommanna G. Krishnappan and Walter H. Graf, HY Mar. 92, p476-494.

Simulation of Unsteady Flow in Irrigation Canals with Dry Bed, Ehab A. Meselhe and Forrest M. Holly, Jr., HY Sept. 93, p1021-1039.

Verification of Theory of Roll-Wave Formation, Victor M. Ponce and Michael P. Maisner, HY June 93, p768-773.

Uplift

Fluctuating Uplift and Lining Design in Spillway Stilling Basins, Virgilio Fiorotto and Andrea Rinaldo, HY Apr. 92, p578-596.

Urban areas

Two-Dimensional Water Flood and Mudflow Simulation, J. S. O'Brien, P. Y. Julien and W. T. Fullerton, HY Feb. 93, p244-261.

Valves

Improved Design of Branched Networks by Using Pressure-Reducing Valves, Rafael Pérez, Fernando Martínez and Antonio Vela, HY Feb. 93, p164-180.

Velocity

Field Measurements of Secondary Currents in Straight Rivers, Iehisa Nezu, Akihiro Tominaga and Hiroji Nakagawa, HY May 93, p598-614.

Laminar Flow with Slip in Channels with Uniformly Porous Walls, Shankararaman Chellam and Mark R. Wiesner, HY Jan. 93, p126-132.

Velocity distribution

Application of Probability and Entropy Concepts in Pipe-Flow Study, Chao-Lin Chiu, Gwo-Fong Lin and Jyh-Ming Lu, HY June 93, p742-756.

Generalized Inner Region Velocity Distribution Equation, Prabhata K. Swamee, HY May 93, p651-656.

Velocity profile

Predicting Flow in Curved Open Channels by Depth-Averaged Method, Yee-Chung Jin and Peter M. Steffler, HY Jan. 93, p109-124.

Viscosity

Generalized Inner Region Velocity Distribution Equation, Prabhata K. Swamee, HY May 93, p651-656.

Vortices

Stability of Riprap at Bridge Piers, A. C. Parola, HY Oct. 93, p1080-1093.

Waste disposal

Hydraulic Model Study for Boston Outfall. I: Riser Configuration, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p970-987.

Hydraulic Model Study for Boston Outfall. II: Environmental Performance, Philip J. W. Roberts and William H. Snyder, HY Sept. 93, p988-1002.

Water distribution

Modeling Pipe Networks Dominated by Junctions, Don J. Wood, L. Srinivasa Reddy and J. E. Funk, HY Aug. 93, p949-958.

Water flow

Local Scour at Bridge Abutments, B. W. Melville, HY Apr. 92, p615-631.

Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Numerical Modeling of Flood Propagation through System of Reservoirs, P. Garcia-Navarro and V. Zorraquino, HY Mar. 93, p380-389.

Oscillation-Free Solution of Shallow Water Equations for Nonstaggered Grid, Romuald Szymkiewicz, HY Oct. 93, p1118-1137.

Water hammer

Large Water-Hammer Pressures for Column Separation in Pipelines, Angus R. Simpson and E. Benjamin Wylie, HY Oct. 91, p1310-1316.

Water levels

Study of Open-Channel Dynamics as Controlled Process, Yuri A. Ermolin, HY Jan. 92, p59-72.

Triple Plate Balanced Resistance Water-Level Gauge, Alan Pugh and Gedfrey A. Walters, HY Mar. 93, p424-430.

Water quality

Great Lakes River-Estuary Hydrodynamic Finite Element Model, Ching L. Chen and Kwang K. Lee, HY Nov. 91, p1531-1550.

Lake Destratification by Bubble-Plume Systems: Design Methodology, S. Geoffrey Schladow, HY Mar. 93, p350-368.

Lake Water Temperature Simulation Model, Midhat Hondzo and Heinz G. Stefan, HY Nov. 93, p1251-1273.

Reservoir Destratification via Mechanical Mixers, Rohan Stephens and Jörg Imberger, HY Apr. 93, p438-457.

Round Buoyant Jet Entering Shallow Water in Motion, A. J. Johnston, N. Nguyen and R. E. Volker, HY Dec. 93, p1364-1382.

Validation of Three-Dimensional Hydrodynamic Model of Chesapeake Bay, Billy H. Johnson, Keu W. Kim, Ronald E. Heath, Bernard B. Hsieh and H. Lee Butler, HY Jan. 93, p2-20.

Water resources

A New Point Estimate Method for Water Resources Modeling, C. Zoppou and K. S. Li, HY Nov. 93, p1300-1307.

Water resources management

Rainfall Intensity-Duration-Frequency Formula for India, Umesh C. Kothyari and Ramchandra J. Garde, HY Feb. 92, p323-336.

Water surface profiles

Nonunique Water-Surface Profiles in Open Channels, Subhash C. Jain, HY Dec. 93, p1427-1434.

Water transportation

Turbulence in Rivers due to Navigation Traffic, Bijoy S. Mazumder, Nani G. Bhowmik and Ta W. Soong, HY May 93, p581-597.

Water waves

Dynamic Response of Poroelastic Bed to Water Waves, L. H. Huang and C. H. Song, HY Sept. 93, p1003-1020.

Verification of Theory of Roll-Wave Formation, Victor M. Ponce and Michael P. Maisner, HY June 93, p768-773.

Wave propagation

Dynamic Response of Poroelastic Bed to Water Waves, L. H. Huang and C. H. Song, HY Sept. 93, p1003-1020.

Verification of Theory of Roll-Wave Formation, Victor M. Ponce and Michael P. Maisner, HY June 93, p768-773.

Wave Propagation in Ice-Covered Channels, Steven F. Daly, HY Aug. 93, p895-910.

Wave runup

Numerical Simulations of Large Water Waves due to Landslides, C. B. Harbitz, G. Pedersen and B. Gjevik, HY Dec. 93, p1325-1342.

Wavelength

Meandering Water Rivulet, Kazumasa Mizumura, HY Nov. 93, p1205-1222.

Waves

Model of Dam-Break Floods for Channels of Arbitrary Cross Section, Chao Wu, Guang-qing Dai and Chigong Wu, HY Aug. 93, p911-923.

Sediment Translation Waves in Braided Gravel-Bed Rivers, George A. Griffiths, HY Aug. 93, p924-937.

Weighting functions

Integration of Rainfall via Multiquadric Surfaces over Polygons, Guy C. Pegram and Geoffrey G. S. Pegram, HY Feb. 93, p151-163.

Weirs

Characteristics of Circular-Crested Weir, Amruthur S. Ramamurthy and Ngoc-Diep Vo, HY Sept. 93, p1055-1062.

Wells

Confined Aquifer Parameters from a Pump Test Near an Impermeable Boundary, Stephen J. Burges, HY July 93, p838-845.

Yield stress

Macroscopic Conductivities for Flow of Bingham Plastics in Porous Media, George C. Vradis and Angelos L. Protopapas, HY Jan. 93, p95-108.